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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Docket Number (Optional) PRE-APPEAL BRIEF REQUEST FOR REVIEW 0303-0420P Filed Application Number 09/522,178-Conf. March 9, 2000 #2307 First Named Inventor Toshio INOUE et al. Examiner Art Unit 2644 L. S. Lao Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. I am the applicant /inventor. Signature assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) James M. Slattery is enclosed. (Form PTO/SB/96) Typed or printed name attorney or agent of record. Registration number (703) 205-8000 Telephone number attorney or agent acting under 37 CFR 1.34. December 7, 2005 Registration number if acting under 37 CFR 1.34. 28,380 Date NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*. *Total of forms are submitted.



IN THE U.S. PATENT AND TRADEMARK OFFICE

Toshio INOUE et al.

Conf. No.

2307 .

Appl. No.:

09/522,178

Art Unit:

2643

Filed:

March 9, 2000

Examiner:

Lun S. LAO

For:

ACTIVE NOISE CONTROL SYSTEM

REQUEST FOR PRE-APPEAL BRIEF CONFERENCE

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450 December 7, 2005

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed concurrently with a Notice of Appeal.

The review is being requested for the reasons set forth hereinafter.

REMARKS

Claims 1-6 and 9-14 are currently being prosecuted. Claims 7 and 8 were previously cancelled.

Rejection Under 35 U.S.C. §103(a)

It is respectfully submitted that the Examiner has made clear errors in rejecting claims 1-6 and 9-14. To assist with a review of this matter, Applicants present the following claim comparison charts for claims 1 and 6:

Independent Claim 1	The Masao Ishihama et al Publication Nakao et al, US 5,651,072
supplied with a reference signal highly correlated to noise from a noise source and generating a noise cancellation signal which is out of phase to noise in the passenger compartment of a vehicle with a	No disclosure for correlating a noise in the passenger compartment of a vehicle. See, Fig. 8 and page 7 of the Masao translation wherein the reference signal x is produced by the engine that is disposed in the engine compartment and not the passenger compartment. In addition, see Fig. 11 of

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canceling sound generating means disposed	Masao wherein it is clear that the reference signal is generated by the engine and is supplied to the FIR and the Adaptive algorithm for producing a control signal. The Examiner acknowledges on Page 2 the penultimate paragraph that Masao supplies a reference signal (x) that is correlated to the engine noise. canceling sound generating means are disposed in
in the passenger compartment for generating a noise canceling sound in response to the noise cancellation signal from said feed-forward control means;	the passenger compartment.
a microphone disposed in the passenger compartment of the vehicle with the fixed roof, the microphone being centrally located on the fixed roof of the vehicle and at an antinode of an acoustic normal mode of the passenger compartment, for detecting said noise of which sound pressure level is high, and for generating the reference signal; and	No disclosure in Masao of a microphone disposed in the passenger compartment of a vehicle with a fixed roof and the microphone being centrally located on the fixed roof. See, Fig. 8 and page 7 of the translation wherein the reference signal (x) is produced by the engine that is disposed in the engine compartment and not the passenger compartment. In addition, see Fig. 11 wherein it is clear that the reference signal is generated by the engine and is supplied to the FIR and the Adaptive algorithm for producing a control signal. The Examiner acknowledges on Page 3 paragraph 3 that Masao does not clearly teach the microphone being centrally located on the fixed roof of the vehicle.
a noise cancellation-confirming microphone for confirming cancellation of the noise in the passenger compartment, and for generating an error signal;	The Examiner utilizes the four (4) microphones illustrated in the upper portion of Fig. 11 of Masao as the noise cancellation-confirming microphones. These microphones are used for generating a feedback signal and cannot be used as the microphones for generating a reference signal.
wherein said feed-forward control means comprises means for lowering the levels of said error signal from said noise cancellation-confirming microphone with the noise cancellation signal; and	The feed-forward control means receives a noise cancellation signal (x) that is generated by the engine disposed in the engine compartment. The feed-forward control means of claim 1 receives a reference signal from a microphone disposed in the passenger compartment.
wherein said noise cancellation-confirming microphone is positioned in a vicinity of ears of occupants seated in the passenger compartment.	The Examiner acknowledges on Page 3, paragraph 3 of his office action that Masao does not clearly teach a noise cancellation-confirming microphone that is positioned in a vicinity of the ears of occupants seated in the passenger compartment. The Examiner relies on the Nakao et al patent for a teaching of positioning microphones in a vicinity of

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the ears of the occupants seated in the passenger compartment. However, the microphones 7-1, 7-2, 7-3 and 7-4 disclosed by Nakao et al are used for detecting noise in the cabin (see, column 4, lines 43-47) after it is cancelled by the speaker 3 from the noise generated by the engine. These microphones do not correspond to the microphones 40, 40A, 41 and 42 that are in the passenger compartment for generating a reference signal as set forth in claim 1. The Nakao et al patent is similar to the Masao publication wherein a microphone is disposed in the engine compartment for detecting the noise of the engine. The combination of references proposed by the Examiner would not render obvious the subject matter as set forth in claim 1.

It is respectfully requested that the Examiner's rejection of claims 1-5 be reversed. No teaching is provided for the combination of elements as set forth in the above claim chart. The prior art relied on by the Examiner does not suggest that the microphones for generating a reference signal are centrally located on the fixed roof of the vehicle. Referring to Fig. 11 of the Masao publication, the microphones illustrated adjacent to the roofline are the feedback signal microphones for providing feedback to determine if the speakers located beneath the seat are able to cancel the noise that is coming from the engine compartment by using the microphone in the engine compartment to generate a reference signal (x) that provides a signal to the FIR filter for controlling the speakers located beneath the seat.

Independent Claim 6

a microphone positioned in the passenger compartment of a vehicle having a fixed roof, the microphone being located at an antinode of a primary or secondary acoustic normal mode of the passenger compartment of the vehicle for detecting said noise of which sound pressure level is high;

Masao Ishihama et al Publication Mason et al, US 5,410,607

No disclosure for a microphone disposed in the passenger compartment of a vehicle with a fixed roof. See, Fig. 8 and page 7 of the Masao translation wherein the reference signal (x) is produced by the engine that is disposed in the engine compartment and not the passenger compartment. In addition, see Fig. 11 wherein it is clear that the reference signal is generated by the engine and is supplied to the FIR and the Adaptive algorithm for producing a control signal.

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canceling sound generating means disposed in the passenger compartment for generating a noise canceling sound;	A canceling sound generating means is disposed in the passenger compartment.
a feedback control circuit for being supplied with an output signal from said microphone and generating an output signal to energize said canceling sound generating means; and a storage box;	No feedback control circuit is provided that is supplied with an output signal from a microphone that is positioned in the passenger compartment. The Masao publication receives a signal from a microphone in the engine compartment. The Examiner acknowledges on Page 5, paragraph 5 that the Masao publication does not clearly teach a storage how.
wherein said microphone and said feedback control circuit are housed together in said storage box, said feedback control circuit having an adjusting circuit for adjusting the amplitude and phase between a canceling sound generating means and the microphone, based on a transfer characteristic from said microphone, to generate a noise cancellation signal which is of the same sound pressure as, but out of phase to, noise at the microphone.	The Examiner acknowledges on Page 5, paragraph 5 that the Masao publication does not clearly teach a microphone and a feedback control circuit that are housed together in the storage box with the feedback control circuit having an adjusting circuit for adjusting the amplitude and phase between a canceling sound generating means and the microphone, based on a transfer characteristic from said microphone, to generate a noise cancellation signal which is of the same sound pressure as, but out of phase to, noise at the microphone. The Mason et al patent is directed to a motion sensor for sensing the movement of a vibrating surface 102 and converting this movement into an electrical motion signal on conductors 204. Thereafter, a controller 202 produces an electrical antinoise signal on the conductors 206. The electrical antinoise signal excites the acoustic driver 104 which is a loadspeaker with a predetermined piston area wherein the piston motion is dependent upon the electrical input signal.

It is respectfully submitted that the Examiner rejection based on the Masao and Mason et al references is not tenable. The Examiner concedes that Masao does not disclose most of the elements as identified in claim 6. The Mason et al patent is directed to a motion sensor for sensing the movement of a vibrating surface. One of ordinary skill in this art would not be lead to modify the Masao publication in view of Mason et al unless he/she first reviewed the subject matter of the present application. Such a hindsight rejection is not sanctioned by the provisions of 35 USC 103. In addition, a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary

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component of an obviousness holding." <u>C.R. Bard, Inc. v. M3 Sys. Inc.</u>, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See <u>In re Dembiczak</u>, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

It is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, <u>In re Lee</u>, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). The rejections currently being reviewed are based on conclusions and not based on a prior art teaching.

Furthermore, the Examiner bears the initial burden of presenting a prima facie case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the Examiner fails to meet this burden, then the Applicants are entitled to the patent. Only when a prima facie case is made, the burden shifts to the Applicants to come forward to rebut such a case. No prima facie case of obvious is set forth in the Examiner's rejection. The Examiner's rejection is merely a statement that the invention is obvious.

In addition, it is respectfully submitted that the Mason et al patents do not disclose the noise ranges as set forth in claims 11-14. Fig. 6 and column 9, lines 20-30 are directed to a vibrator wherein noise signals in the range of 75 to 500 Hz or 120 to 400 Hz are produced. This noise range does not anticipate nor render obvious the ranges of 20 to 120 Hz or 40 to 80 Hz as set forth in claims 11-14.

Therefore, all claims of the present application are in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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